

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1. (Currently amended) A non-naturally occurring seed plant, the plant comprising:
a first ectopically expressed polynucleotide encoding an APETALA1 gene product exhibiting at least 90% sequence identity at least 50% identical to SEQ ID NO:2, SEQ ID NO:4, SEQ ID NO:6 or SEQ ID NO:8 or a CAULIFLOWER gene product at least 50% identical to SEQ ID NO:10 or SEQ ID NO:12; and
a second ectopically expressed nucleic acid molecule encoding a SEP1 gene product at least 50% identical to SEQ ID NO:28, a SEP2 gene product at least 50% identical to SEQ ID NO:30, a SEP3 gene product exhibiting at least 90% sequence identity at least 50% identical to SEQ ID NO:32 or an AGL24 gene product at least 50% identical to SEQ ID NO:38,
wherein the plant is characterized by early reproductive development compared to a plant lacking the first and second ectopically expressed polynucleotides.
2. (Canceled)
3. (Original) The non-naturally occurring seed plant of claim 1, wherein expression of the first ectopically expressed polynucleotide is increased in a tissue of a plant compared to a wild type plant.
4. (Original) The non-naturally occurring seed plant of claim 1, wherein expression of the second ectopically expressed polynucleotide is increased in a tissue of a plant compared to a wild type plant.
- 5-8. (Canceled)
9. (Original) The non-naturally occurring seed plant of claim 1, wherein the non-naturally occurring seed plant is a transgenic plant comprising a first exogenous gene regulatory element

operably linked to the first ectopically expressible polynucleotide and a second exogenous gene regulatory element operably linked to the second ectopically expressible polynucleotide.

10. (Canceled)

11. (Withdrawn) The non-naturally occurring seed plant of claim 9, wherein the first polynucleotide is operably linked to the first exogenous gene regulatory element in an antisense orientation.

12. (Canceled)

13. (Withdrawn) The non-naturally occurring seed plant of claim 9, wherein the second polynucleotide is operably linked to the second exogenous gene regulatory element in an antisense orientation.

14. (Canceled)

15. (Currently amended) The non-naturally occurring seed plant of claim 14, wherein the first ectopically expressed polynucleotide encodes an APETALA1 gene product comprising a polypeptide selected from the group consisting of SEQ ID NO:2, SEQ ID NO:4, SEQ ID NO:6 and SEQ ID NO:8.

16. The non-naturally occurring seed plant of claim 15, wherein the first ectopically expressed polynucleotide encodes SEQ ID NO:2.

17. (Withdrawn) The non-naturally occurring seed plant of claim 15, wherein the first ectopically expressed polynucleotide encodes SEQ ID NO:4.

18. (Withdrawn) The non-naturally occurring seed plant of claim 15, wherein the first ectopically expressed polynucleotide encodes SEQ ID NO:6.

19. (Withdrawn) The non-naturally occurring seed plant of claim 15, wherein the first ectopically expressed polynucleotide encodes SEQ ID NO:8.

20. (Withdrawn) The non-naturally occurring seed plant of claim 1, wherein the first ectopically expressed polynucleotide encodes a CAULIFLOWER gene product at least 50% identical to a polypeptide selected from the group consisting of SEQ ID NO:10 and SEQ ID NO:12.
21. (Withdrawn) The non-naturally occurring seed plant of claim 20, wherein the first ectopically expressed polynucleotide is a CAULIFLOWER gene product comprising a polypeptide selected from the group consisting of SEQ ID NO:10 and SEQ ID NO:12.
22. (Withdrawn) The non-naturally occurring seed plant of claim 21, wherein the first ectopically expressed polynucleotide encodes SEQ ID NO:10.
23. (Withdrawn) The non-naturally occurring seed plant of claim 21, wherein the first ectopically expressed polynucleotide encodes SEQ ID NO:12.
24. (Withdrawn) The non-naturally occurring seed plant of claim 1, wherein the second ectopically expressed polynucleotide encodes an SEP1 gene product at least 50% identical to SEQ ID NO:28.
25. (Withdrawn) The non-naturally occurring seed plant of claim 24, wherein the second ectopically expressed polynucleotide is an SEP1 gene product comprising SEQ ID NO:28.
26. (Withdrawn) The non-naturally occurring seed plant of claim 1, wherein the second ectopically expressed polynucleotide encodes an SEP2 gene product at least 50% identical to SEQ ID NO:30.
27. (Withdrawn) The non-naturally occurring seed plant of claim 26, wherein the second ectopically expressed polynucleotide is an SEP2 gene product comprising SEQ ID NO:30.
28. (Canceled)

29. (Currently amended) The non-naturally occurring seed plant of claim 28, wherein the second ectopically expressed polynucleotide encodes ~~is a~~ an SEP3 gene product comprising SEQ ID NO:32.

30. (Withdrawn) The non-naturally occurring seed plant of claim 1, wherein the second ectopically expressed polynucleotide is an AGL24 gene product at least 50% identical to SEQ ID NO:38.

31. (Withdrawn) The non-naturally occurring seed plant of claim 30, wherein the second ectopically expressed polynucleotide is an AGL24 gene product comprising SEQ ID NO:38.

32. (Currently amended) A method of decreasing ~~modulating~~ the timing of reproductive development in a plant, the method comprising,

ectopically expressing a first polynucleotide encoding an APETALA1 gene product exhibiting at least 90% sequence identity at least 50% identical to SEQ ID NO:2; SEQ ID NO:4; SEQ ID NO:6 or SEQ ID NO:8 or a CAULIFLOWER gene product at least 50% identical to SEQ ID NO:10 or SEQ ID NO:12; and

ectopically expressing a second nucleic acid molecule encoding ~~a SEP1 gene~~ product at least 50% identical to SEQ ID NO:28; ~~a SEP2 gene product at least 50% identical to~~ SEQ ID NO:30; a SEP3 gene product exhibiting at least 90% sequence identity at least 50% identical to SEQ ID NO:32 ~~or an AGL24 gene product at least 50% identical to SEQ ID NO:38~~, thereby producing a plant with decreased timing of reproductive development compared to a plant lacking the first and second ectopically expressed polynucleotides.

33. (Currently amended) The method of claim 32 comprising,

introducing a first ectopically expressed nucleic acid molecule comprising a first polynucleotide encoding an APETALA1 gene product exhibiting at least 90% sequence identity at least 50% identical to SEQ ID NO:2; SEQ ID NO:4; SEQ ID NO:6 or SEQ ID NO:8 or a CAULIFLOWER gene product at least 50% identical to SEQ ID NO:10 or SEQ ID NO:12; and

introducing a second ectopically expressed nucleic acid molecule comprising a second polynucleotide encoding a ~~SEP1 gene product at least 50% identical to SEQ ID NO:28, a SEP2 gene product at least 50% identical to SEQ ID NO:30, a SEP3 gene product exhibiting at least 90% sequence identity at least 50% identical to SEQ ID NO:32 or an AGL24 gene product at least 50% identical to SEQ ID NO:38.~~

34. (Original) The method of claim 33, wherein the first and second ectopically expressed nucleic acid molecules each comprise a gene regulatory element operably linked to the first and second polynucleotides.

35. (Canceled)

36. (Withdrawn) The method of claim 34, wherein the first polynucleotide is operably linked to the gene regulatory element in an antisense orientation.

37. (Canceled)

38. (Withdrawn) The method of claim 34, wherein the second polynucleotide is operably linked to the gene regulatory element in an antisense orientation.

39. (Original) The method of claim 33, wherein expression of the first polynucleotide is increased in a tissue of the plant compared to a wildtype plant.

40. (Canceled)

41. (Original) The method of claim 33, wherein expression of the second polynucleotide is increased in a tissue of the plant compared to a wildtype plant.

42. (Canceled)

43. (Original) The method of claim 34, wherein the gene regulatory element is constitutive.

44. (Original) The method of claim 34, wherein the gene regulatory element is inducible.

45. (Original) The method of claim 34, wherein the gene regulatory element is tissue-specific.
46. (Canceled)
47. (Canceled)
48. (Canceled)
49. (Currently amended) The method of claim 48, wherein the first ectopically expressed polynucleotide encodes is an APETALA1 gene product comprising ~~comprises a polypeptide selected from the group consisting of SEQ ID NO:2, SEQ ID NO:4, SEQ ID NO:6 and SEQ ID NO:8.~~
50. (Original) The method of claim 49, wherein the first ectopically expressed polynucleotide encodes SEQ ID NO:2.
51. (Withdrawn) The method of claim 49, wherein the first ectopically expressed polynucleotide encodes SEQ ID NO:4.
52. (Withdrawn) The method of claim 49, wherein the first ectopically expressed polynucleotide encodes SEQ ID NO:6.
53. (Withdrawn) The method of claim 49, wherein the first ectopically expressed polynucleotide encodes SEQ ID NO:8.
54. (Withdrawn) The method of claim 33, wherein the first ectopically expressed polynucleotide is a CAULIFLOWER gene product is at least 50% identical to a polypeptide selected from the group consisting of SEQ ID NO:10 and SEQ ID NO:12.
55. (Withdrawn) The method of claim 54, wherein the first ectopically expressed polynucleotide is a CAULIFLOWER gene product comprises a polypeptide selected from the group consisting of SEQ ID NO:10 and SEQ ID NO:12.

56. (Withdrawn) The method of claim 54, wherein the first ectopically expressed polynucleotide encodes SEQ ID NO:10.
57. (Withdrawn) The method of claim 54, wherein the first ectopically expressed polynucleotide encodes SEQ ID NO:10.
58. (Withdrawn) The method of claim 33, wherein the second ectopically expressed polynucleotide is an SEP1 gene product is at least 50% identical to SEQ ID NO:28.
59. (Withdrawn) The method of claim 58, wherein the second ectopically expressed polynucleotide is an SEP1 gene product comprising SEQ ID NO:28.
60. (Withdrawn) The method of claim 33, wherein the second ectopically expressed polynucleotide is an SEP2 gene product is at least 50% identical to SEQ ID NO:30.
61. (Withdrawn) The method of claim 60, wherein the second ectopically expressed polynucleotide is an SEP2 gene product comprises SEQ ID NO:30.
62. (Canceled)
63. (Currently amended) The method of claim 62, wherein the second ectopically expressed polynucleotide is a ~~an~~ SEP3 gene product comprising ~~comprises~~ SEQ ID NO:32.
64. (Withdrawn) The method of claim 33, wherein the second ectopically expressed polynucleotide is an AGL24 gene product is at least 50% identical to SEQ ID NO:38.
65. (Withdrawn) The method of claim 64, wherein the second ectopically expressed polynucleotide is an AGL24 gene product comprising ~~comprises~~ SEQ ID NO:38.